

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 August 2004 (12.08.2004)

PCT

(10) International Publication Number
WO 2004/068768 A3

(51) International Patent Classification⁷: **H04Q 7/00**

60010 (US). **PAZHYANNUR, Rajesh S.**, [US/US]; 941 Holly Circle, Lake Zurich, IL 60047 (US).

(21) International Application Number:
PCT/US2004/001289

(74) Agents: **JACOBS, Jeffrey K.**, et al.; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).

(22) International Filing Date: 20 January 2004 (20.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/349,765 23 January 2003 (23.01.2003) US

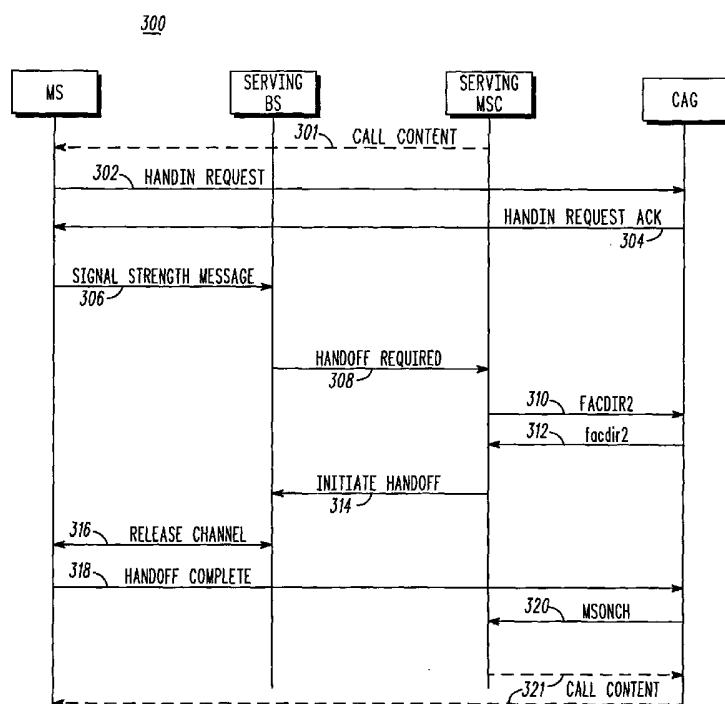
(71) Applicant (for all designated States except US): **MOTOROLA INC. A CORPORATION OF THE STATE OF DELAWARE** [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR A SOURCE-INITIATED HANDOFF FROM A SOURCE CELLULAR WIRELESS NETWORK TO A TARGET NON-CELLULAR WIRELESS NETWORK



(57) Abstract: To address the need for an apparatus and method for handoff from a cellular wireless network to a non-cellular wireless network (WLAN, e.g.), the present application describes an access gateway (214) and a dual mode mobile station (201) that enable such handoffs. Dual mode MSs can determine when a handoff to a non-cellular network is preferred and request a handin (302) from the non-cellular network. The access gateway provides information to the MS (304) so that it can initiate a handoff through the serving cellular network. Triggering handoffs in this manner, allows cellular networks to handle handoffs to non-cellular networks in much the same way they handle inter-MSC handoffs today, i.e., source initiated.

WO 2004/068768 A3



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

14 October 2004

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/01289

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04Q 7/00

US CL : 370/331

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 370/331,338,332,401; 455/436,437,552.1,553.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/0085516 A1 (BRIDGELALL) 04 July 2002, Fig. 13, para [0075]-[0083].	1-10
A,P	US 2004/0002335 A1 (PAN et al) 01 January 2004, Fig. 1, para. [0024]-[0027]	1-10
A,P	US 2003/0117978 A1 (HADDAD) 26 June 2003, para. [0020]-[0021]	1-10

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

Date of the actual completion of the international search

06 July 2004 (06.07.2004)

Date of mailing of the international search report

31 AUG 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703)305-3230

Authorized officer

Chi H Pham

Telephone No. 703-305-9600